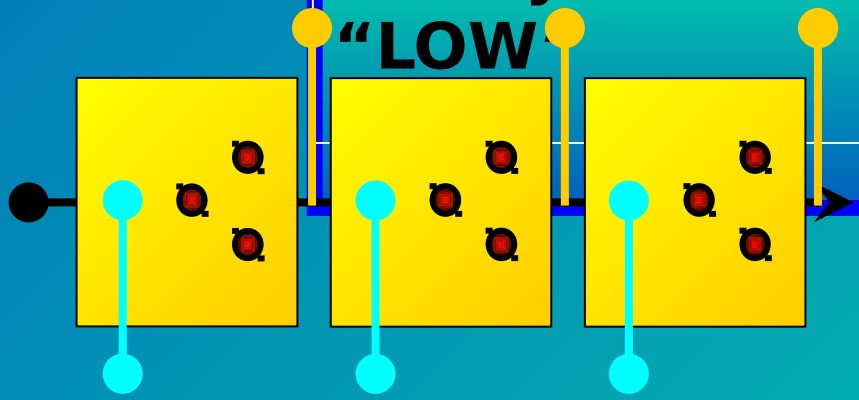
Configurations Part III

Unclassified

Safety & Environmental Impact is “LOW”



T1: Amplifier Configuration III

Terminal Learning Objective

Action:

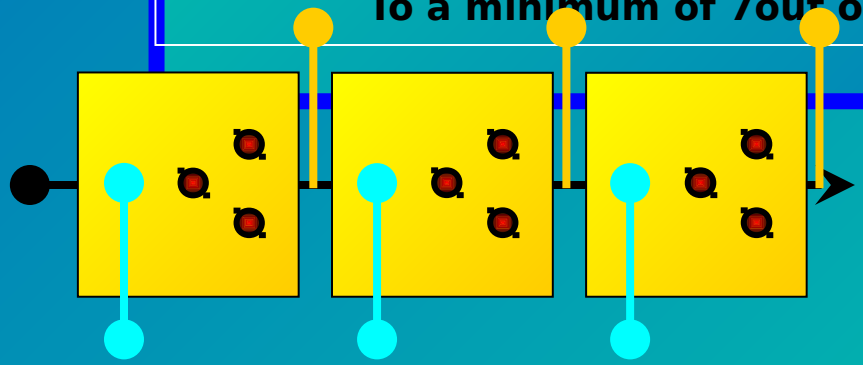
Up to this time we have been confined to troubleshooting 1 Card. Given the block diagram of the 3 amplifiers covered in previous lessons, a schematic diagram & the procedure for troubleshooting, utilizing the ½ split method, correctly identify the malfunctioning card & malfunctioning component by correctly recording the results.

Condition:

Without references.

Standard:

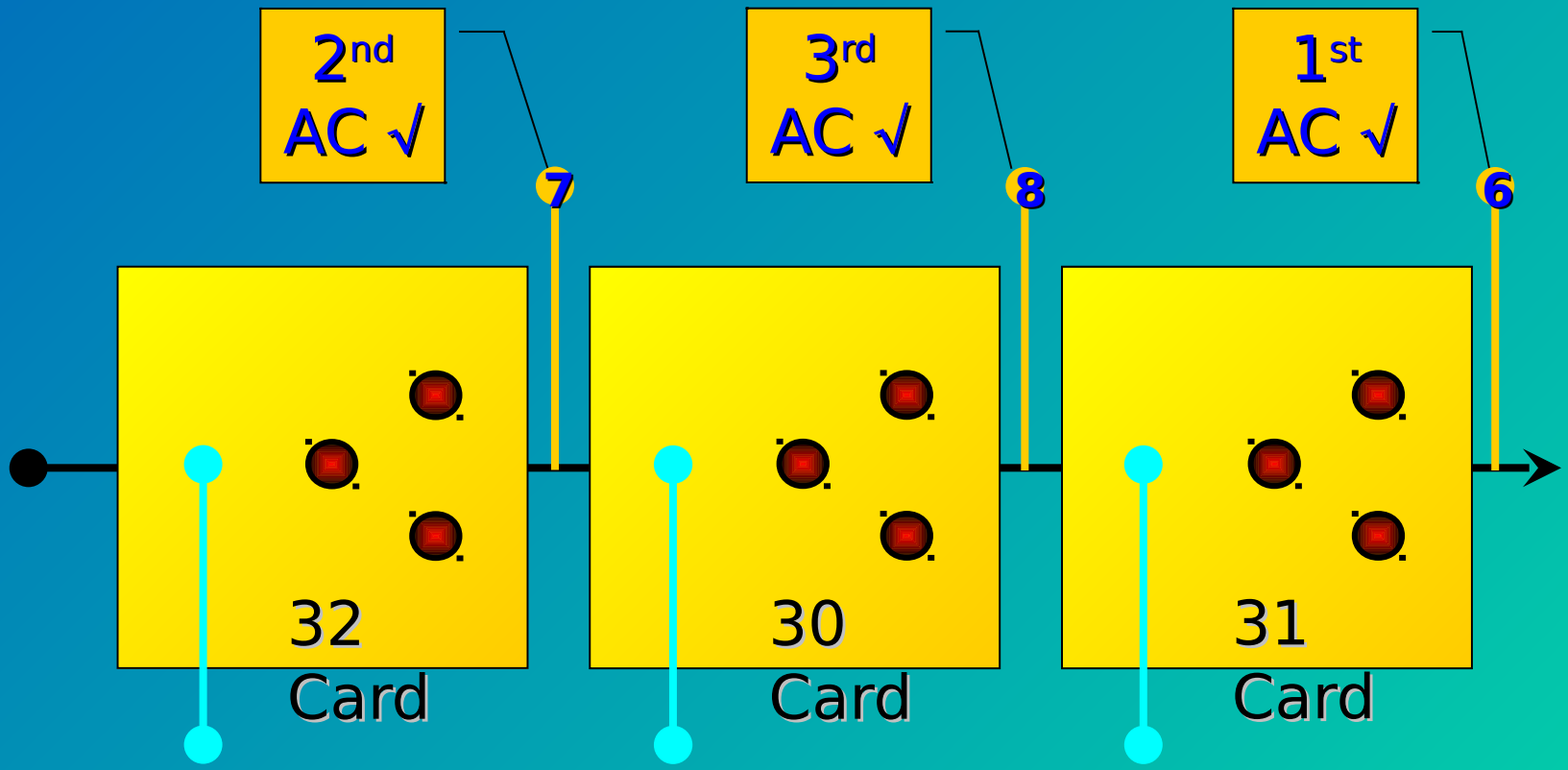
To a minimum of 7out of 10 correct answers.



T1: Amplifier Configuration III

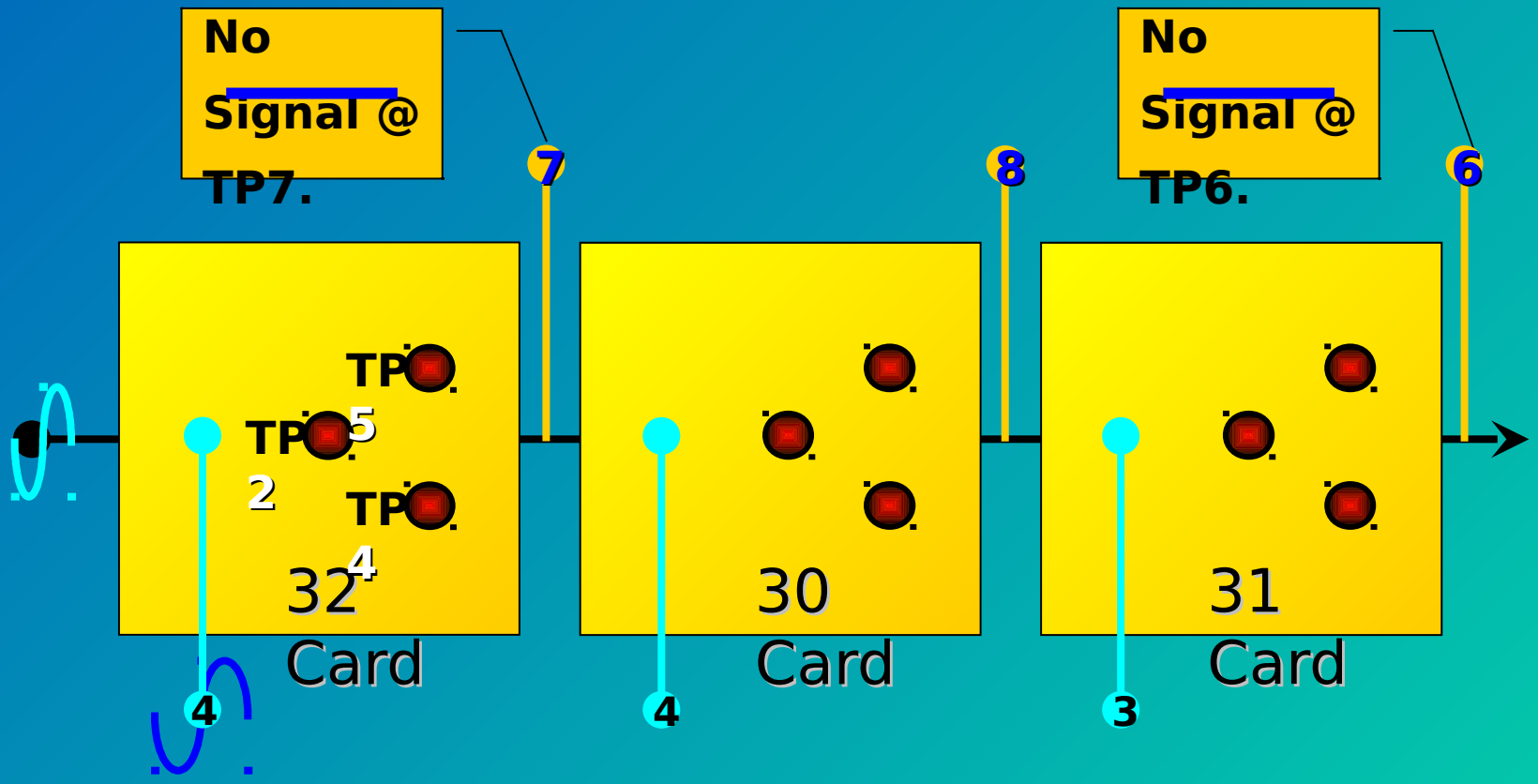
TROUBLESHOOTING: Locating the Defective Card, AC Check Sequence.

½ Split Method, Checking AC outputs.



T1: Amplifier Configuration III

TROUBLESHOOTING: Locate the Defective Card, ½ Split Method.



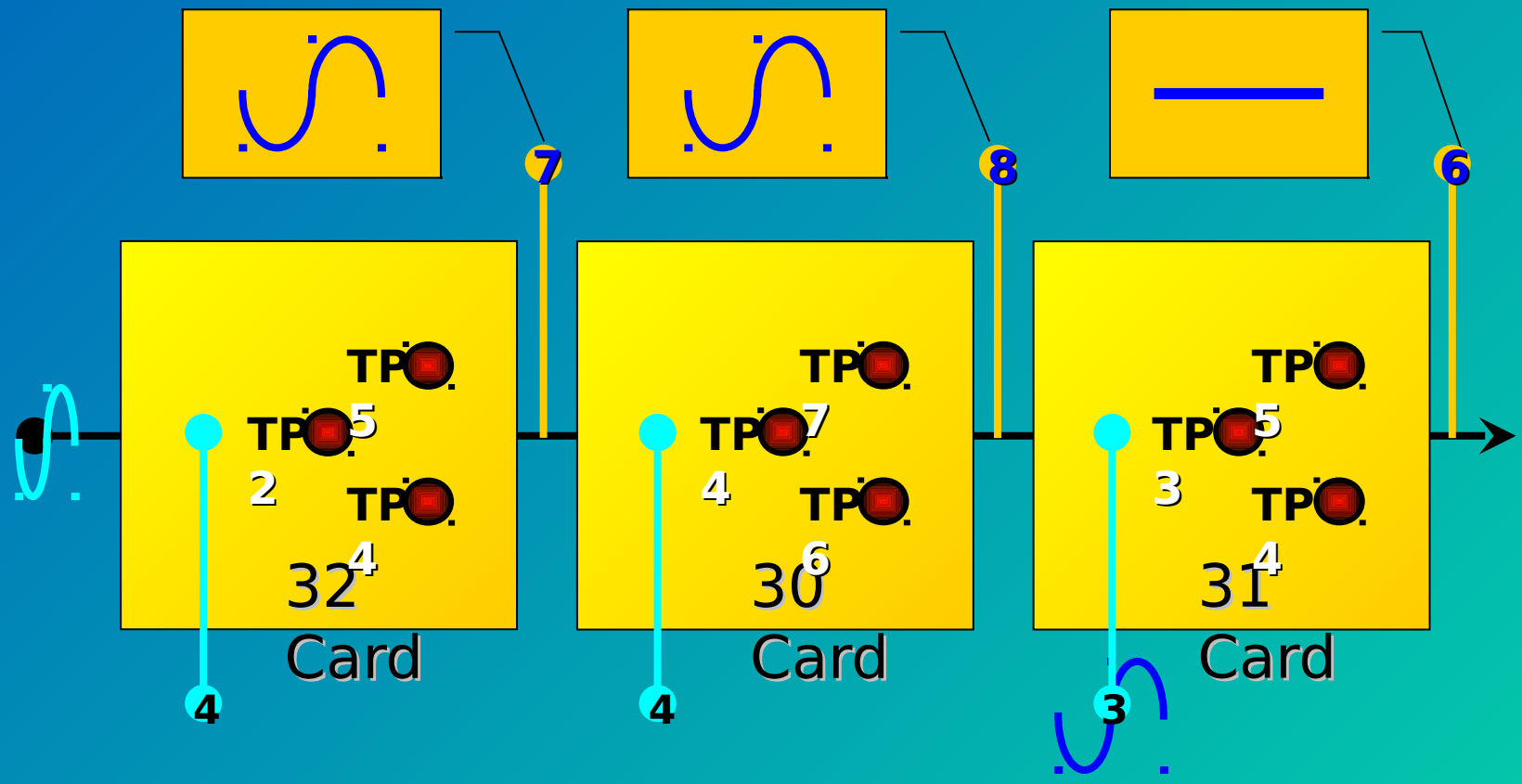
32 Card is Malfunctioning. Confirm & Record AC Input @ TP4.

Record DCV @ TP5, 2, 4.

Challenge

T1: Amplifier Configuration III

TROUBLESHOOTING: Locate the Defective Card, & Record.



Malfunctioning Card ?

_____

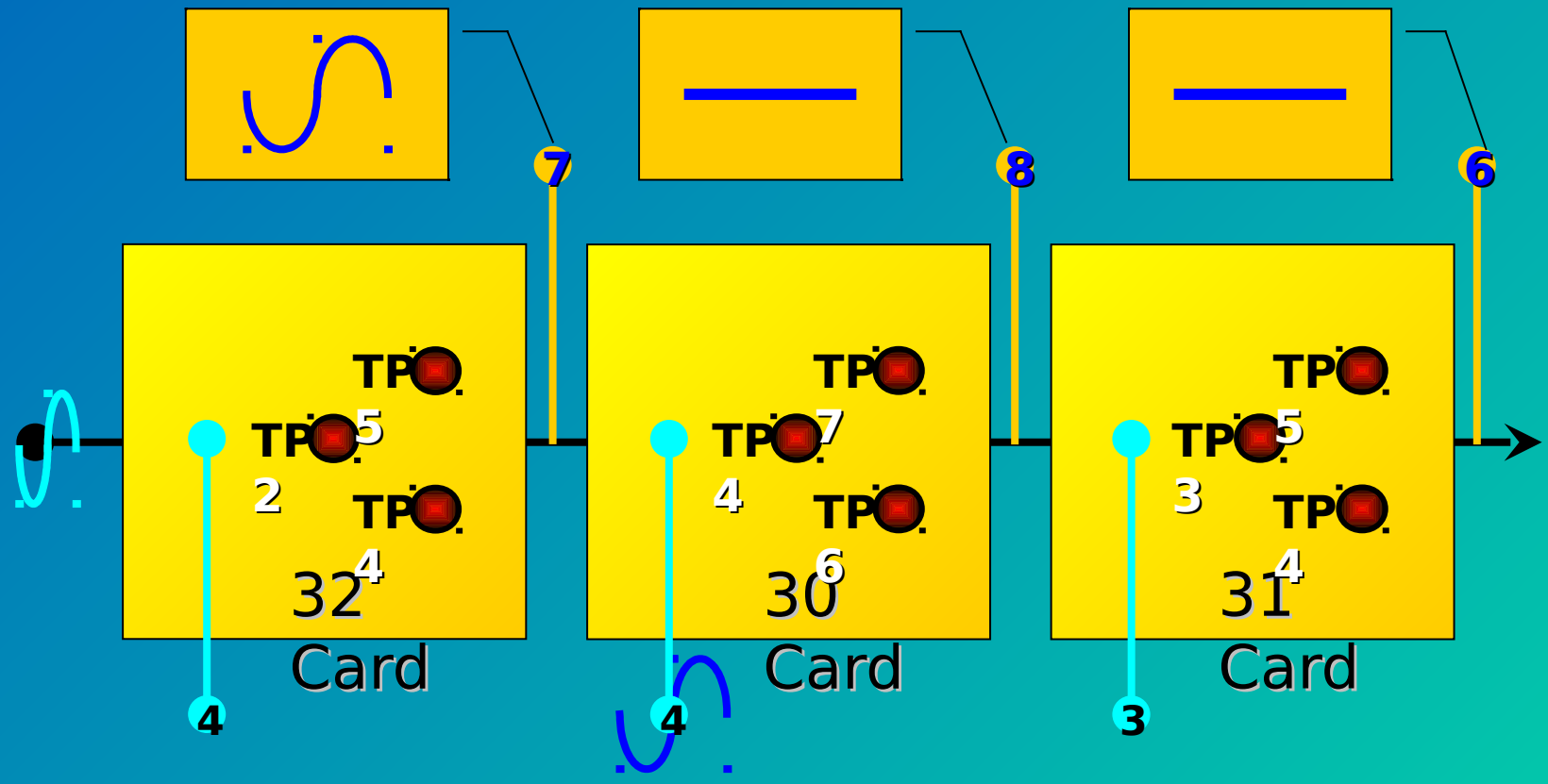
AC Input @ TP. ____

DCV @ TP____, ____, ____.

Challenge

T1: Amplifier Configuration III

TROUBLESHOOTING: Locate the Defective Card, & Record.



Malfunctioning Card ?

_____

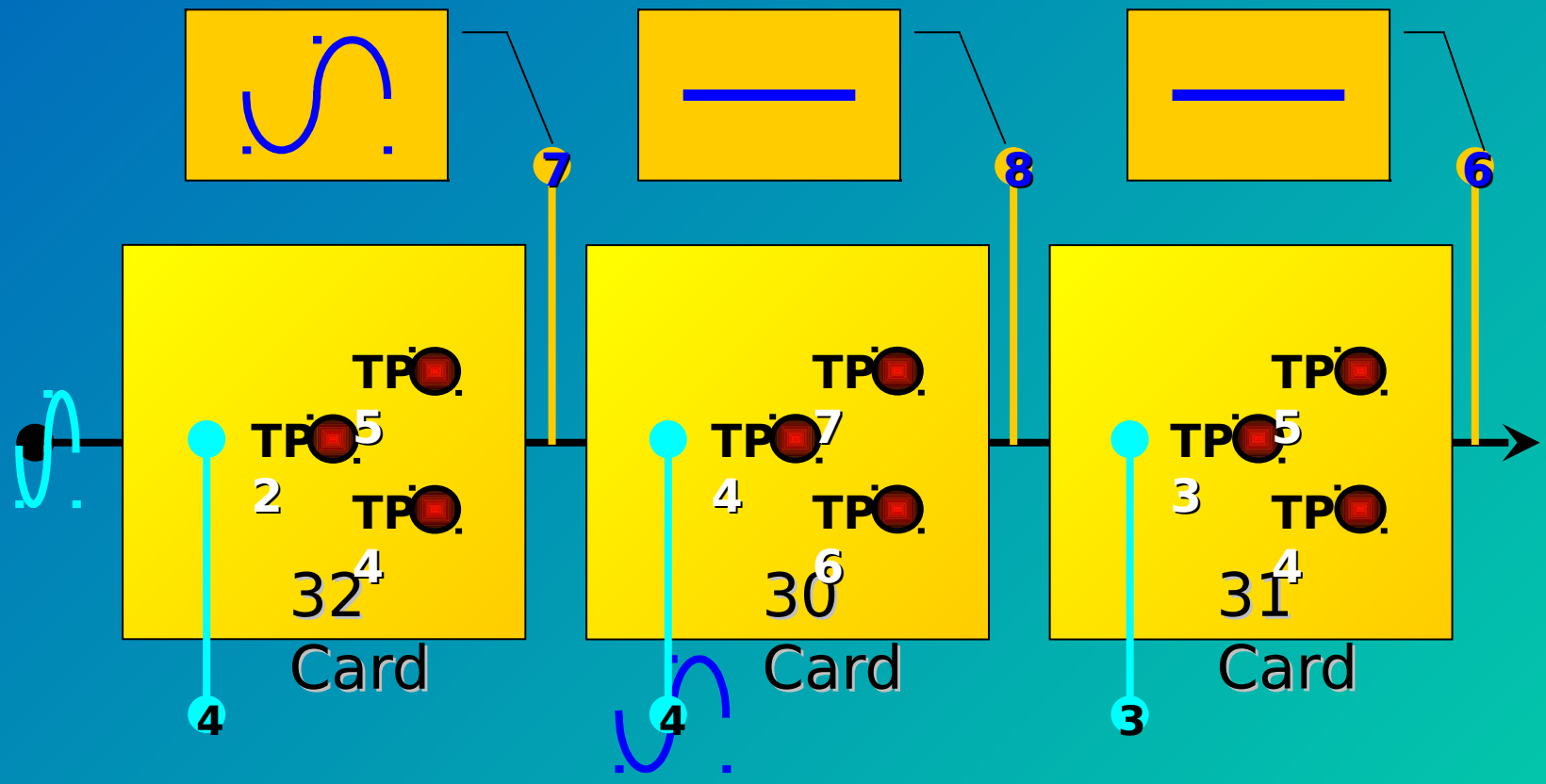
AC Input @ TP. ____

DCV @ TP___, ___, ___.

Challenge

T1: Amplifier Configuration III

TROUBLESHOOTING: Locate the Defective Card, & Record.



Malfunctioning Card ?

_____

AC Input @ TP. ____

DCV @ ALL TP Normal

Recording

T1: Amplifier Configuration III

TROUBLESHOOTING: **Recording The Results.**

AC Output

AC Input

DCV C, B, E.

Ohm's Confirmation

Card:	TP:	Indication:	
31	TP: 6		O'scope
32	TP: 7		O'scope
30	TP: 8		O'scope
31	TP: 3		O'scope
31	TP: 5	12 VDC	
31	TP: 3	735 mVDC	DMM
31	TP: 4	√ .093 mVDC	DMM
31	TP: 3/5	Hi/Hi	DMM

Card; _____

Component; _____

Malfunction; _____

Courtesy Check mark to let the Instructor know which DCV you based your findings on.

Review ?

T1: Amplifier Configuration III

REVIEW QUESTIONS: **Refer to PC 30A for questions 1-4.**

1. **There is no output signal @ TP8, a good input @ TP4, DCV @ TP7 = 12V, TP4 = .8V & TP6 = 0V. What is the possible malfunction?**

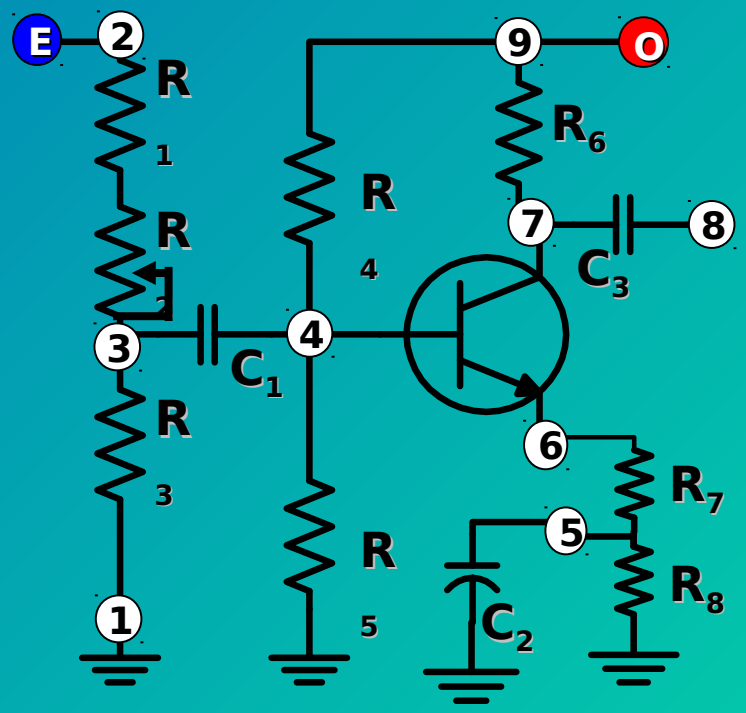
   a. R4 Open **b. R6 Open**

   c. Q1 B Open **d. Q1 B-C Short**

2. **There is no output signal @ TP8, NO input @ TP4, DCV @ TP7 = 12V, TP4 = 0 V & TP6 = 0V. What is the possible malfunction?**

   a. R5 Open **b. R6 Short**

   c. R8 Open **d. R5 Short**



PC 30, CE Amp

Answers

T1: Amplifier Configuration III

REVIEW QUESTIONS: **Refer to PC 30A for questions 1-4.**

3. **There is no output signal @ TP8, a good input @ TP4, DCV @ TP7 = 125mV, TP4 = 500mV & TP6 = 50mV. What is the malfunction?**

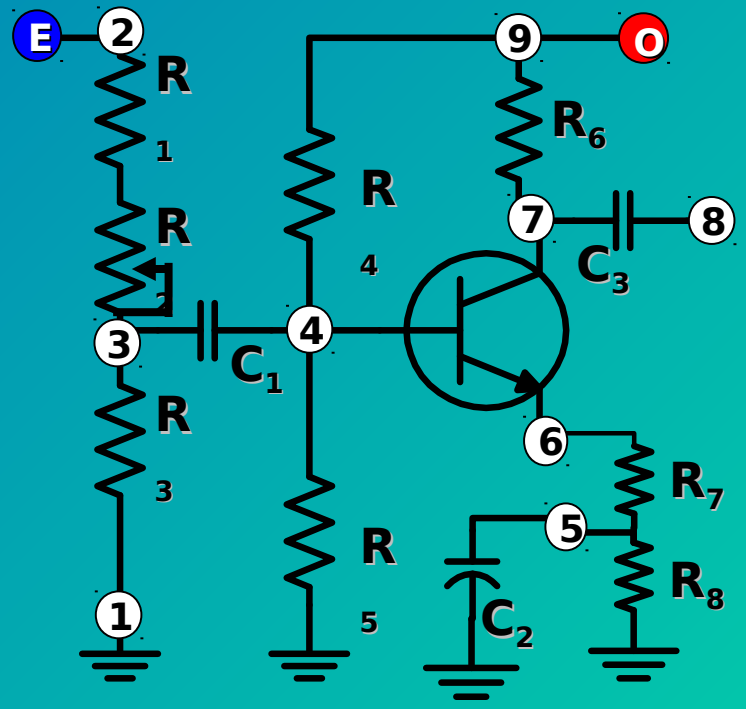
   a. R4 Open **b. R8 Open**

   c. R6 Open **d. C2 Open**

4. **There is no output signal @ TP8, a good input @ TP4, DCV @ TP7 = 12V, TP4 = 0 V & TP6 = 0V. What is the malfunction?**

   a. R4 Open **b. R5 Open**

   c. R6 Open **d. R8 Open**



PC 30, CE Amp

Answers

T1: Amplifier Configuration III

REVIEW QUESTIONS: **Refer to PC 32A for questions 5-7.**

5. **There is No output signal @ TP7, a good Input @ TP4, DCV @ TP5 = 12V, TP2 = 780mV & TP4 = 160mV. What is the malfunction?**

   a. Q1 E Open **b. Q1 B Open**

   c. Q1 C Open **d. R2 Open**

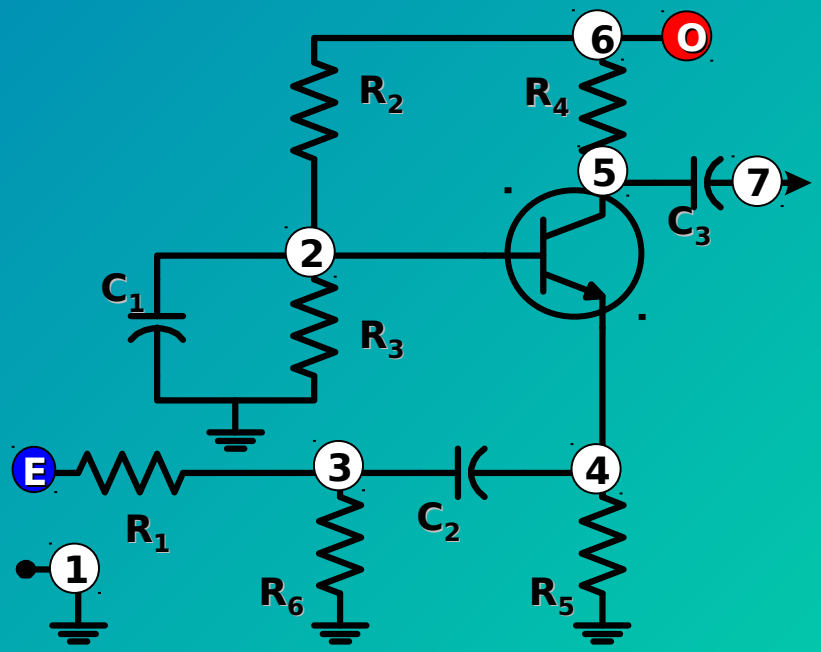
6. **There is No output signal @ TP7, a good Input @ TP4, DCV @ TP5 = 12V, TP2 = 0V & TP4 = 0V. What is the malfunction?**

   a. R4 Open **b. R5 Open**

   c. C2 Open **d. R2 Open**

7. **There is No output signal @ TP7, No Input @ TP4, DCV are all normal. What is the malfunction?**

   a. R4 Open **b. R5 Open**



PC 32, CB Amp

Answers

T1: Amplifier Configuration III

REVIEW QUESTIONS: **Refer to PC 31A for questions 8-10.**

8. **The output signal @ TP6 is ∩∩∩ , a normal @ TP3, DCV @ TP5 = 12V, TP3 = -1.5V & TP4 = 200mV. What is the malfunction?**

   a. R2 Open **b. Q1 B-E Short**

   c. Q1 C Open **d. R3 Short**

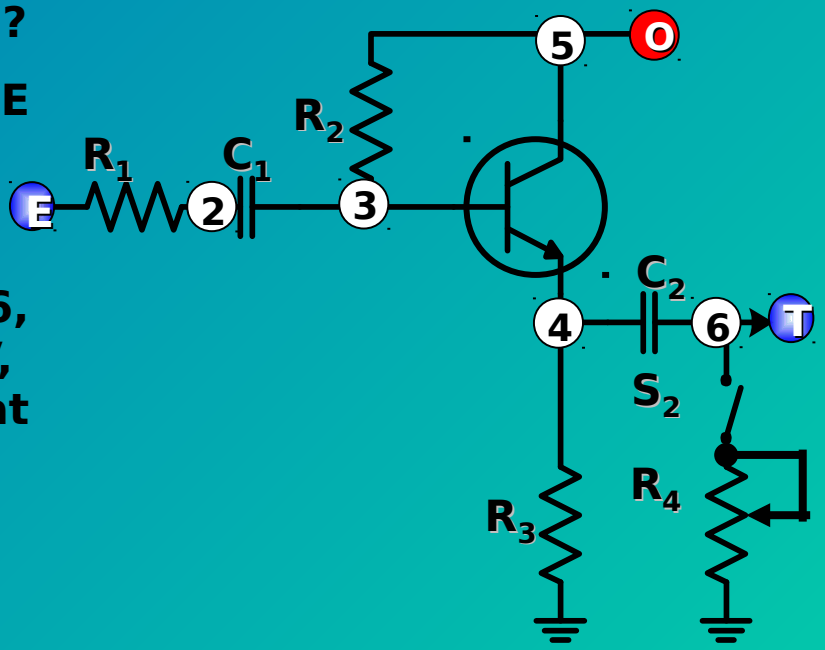
9. **There is No output signal @ TP6, a @ TP3, DCV @ TP5 = 12V, TP3 = 236mV & TP4 = 0V. What is the malfunction?**

   a. R3 Short **b. Q1 Open**

   c. R2 Short **d. S1 Open**

10. **There is No output signal @ TP6, No signal @ TP3, DCV @ TP5 ,3,4 are all normal. What is the malfunction?**

    a. R2 Open **b. C1 Open**



PC 31, CC Amp

Answers

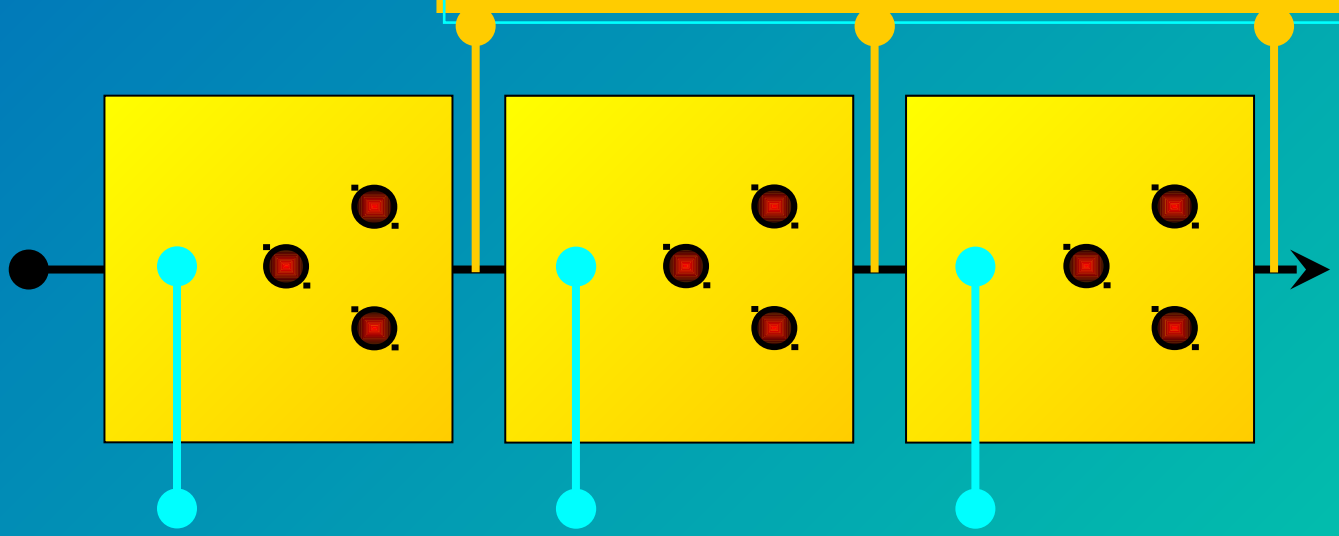
T1: Amplifier Configuration III

SUMMARY & REVIEW:

Lesson Test:

Standard: **10 Questions in 20 Minutes.**
7 Correct Answers Minimum.

Reference: **None.**



PC 30,31 & 32 Schematic

T1: Amplifier Configuration III